



INDIANA DEPARTMENT OF NATURAL RESOURCES

PATRICK R. RALSTON, DIRECTOR

Division of Oil and Gas
402 W. Washington St., Room W293
Indianapolis, IN 46204

December 9, 1996

Harlan Gerrish
USEPA - Region 5
WU-17-J
77 West Jackson Blvd.
Chicago, IL 60604-3590

RECEIVED

DEC 12 1996

Re: Request for an Exemption of the Trenton Aquifer in the Vicinity of Chalmers, IN
from the Protection of the Safe Drinking Water Act for Indiana Gas Company's
Permit No. 43983

Dear Mr. Gerrish:

As you are aware, this particular request has been handled by numerous people at your office, my office and the operator's office since it was begun in 1994. I would like to finalize it. Your last correspondence indicated that your office did not receive any supporting documentation with the original request for the exemption. Enclosed you will find copies of:

- Original application for the Class II conversion including fluid analysis and letter of non-objection from the landowners.
- Portion of Indiana Oil and Gas map for White County, IN.
- Completion reports for wells in the 1/4 mile Area of Review.
- Location and depths of water wells in the region. The operator has included a computer printout of the data and a quad map showing approximate locations.

According to the data the Division now has, all water wells are relatively shallow. The majority of them are in the unconsolidated glacial gravels. Well number 19 (permit no. 23697) was properly plugged back to a depth of 347 feet from the original depth of 1566 feet and left as a well. Well number 5 is 1.38 miles north of the referenced well. At 561 feet, it is the deepest well in the area. The town of Chalmers has two (2) wells shown as numbers 15 and 16 on the map with a maximum depth of 135 feet.

Fluid is to be injected into the Trenton formation. It is capped by over 200 feet of shales of the Maquoketa group. The Trenton has been historically a hydrocarbon reservoir. There are numerous gas injection/withdrawal wells currently permitted and in use for the Trenton formation at the Chalmers field less than a mile from the referenced well location. The Black River formation immediately below the Trenton is being used for Class II injection at this operator's Wolcott field located 12 miles to the west. Fluid from the Trenton has been analyzed to contain 4400 ppm TDS. Since ample water is present at shallow depths, it is economically unfeasible to drill more than 1000 feet through thick unproductive shales to tap into a poorer quality water source. According to your letter of April 18, 1996, a formation may be granted an aquifer exemption if the fluid analysis

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shows a TDS greater than 3000 ppm and if it is not reasonably expected to provide a public water supply.

Based on the enclosed data and the above discussion, the Division of Oil and Gas recommends that the aquifer exemption be granted.

If you have any questions, please do not hesitate to contact me at the above address or call (317) 232-0045. Thank you.

Sincerely,

A handwritten signature in cursive script, appearing to read "Mona L. Nemecek".

Mona L. Nemecek
Petroleum Geologist
Technical Section

Encl.

cc: K. Keppel, Indiana Gas Co. w/out encl.